

ENERGY TIDBITS

September 2006

GM Lansing Delta Township Assembly Plant has been awarded LEED Gold certification for their green building efforts. Out of the 560 facilities certified by the US Green Building Council only five are manufacturing. Green building measures include turning lights off in work areas when workers are gone, keeping lights off in robot areas, white roof to reflect sunlight and heat, 3,000 gallon cisterns to hold rainwater for use in bathrooms, and waterless urinals.

Building a Solar Panel Workshop will be held on Sept. 9, 9 am - 1 pm at the Pierce Cedar Creek Institute in Hastings. A similar program for middle school science teachers, Solar Energy in the Classroom, will be held at Pierce Cedar Creek on Oct. 14, 9 am-3 pm. Teachers will build their own 12-watt PV system that can run small appliances or tools. Participants will also receive supporting curriculum, supplies, and ideas that are aligned with Michigan Curriculum Framework Science benchmarks. Contact 269-721-4190 or groenm@cedarcreekinstitute.org.

Using Waste Heat for External Processes tip sheet describes the savings resulting from using waste heat from high-temperature industrial processes for lower temperature processes, like oven-drying. <http://www.nrel.gov/docs/fy06osti/38853.pdf>

LEED for Homes Builder Seminar will be held on September 22, 8:30-4:00, at the Alliance for Environmental Sustainability office in Grand Rapids. US Green Building Council selected AES as the LEED for Homes Pilot Program Provider for Michigan. Only 12 regional providers were chosen from across the US. The pilot project has had its first project in West Michigan certified. It is only the third project in the nation certified. The builder is Energy Efficient Homes of W MI (contact Cindy Thacker at 616-301-1919). AES at 616-458-6733 or info@alliancees.org.

CL Gruner Homes, a 2005 Energy Star Home grantee, has a web site tour at <http://www.clgrunerhomes.com/green-built/>

Michigan Coalition on the Environment & Jewish Life will present, "Bricks and Mortar: Dollars and Sense," information on green building funding, design, operation & renovation for homeowners, congregations & social service agencies. The seminar will be on Sept. 14, 7-9 pm at Temple Eamnu-El in Oak Park. Speakers are Paul Goldsmith on "Building Green with LEED", Danielle Conroyd on "Sustainable Renovation", John Sarver on "Financing Green Building & Renovation", and Jim Newman on "Saving Money & Comfort through Proper Operation & Maintenance of your HVAC Systems." RSVP: 248-642-5393, ext 7, or mi-coejl@jfmnd.org.

2006 Building Code in Ontario provides the toughest energy-efficiency standards of any building code in Canada to reduce GHG emissions and will encourage innovation in building design and products. Provisions will promote the use of solar PV and active solar hot water systems.

U.S. Wind Energy Facilities now exceed 10,000 megawatts in generating capacity, producing enough electricity to power more than 2.5 million homes a day. Texas is #1 now.

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Dogo Island, a small island off the coast of Japan, is an example of how a flywheel energy storage system can provide the stabilizing capability lacking on many island power grids. In 2003, Fuji Electric installed a 200-kW UPT KESS from Urenco Power Technology in conjunction with a 3x600 kW installation of De-Wind D4 wind turbines. By incorporating the flywheel unit into the installation of the wind turbines, Fuji Electric sought to stabilize the frequency variations stemming from the turbines, capture excess energy from short-term wind gusts, optimize the operation of diesel generators, and eliminate the need for additional spinning reserve. Results to date have been promising. The UPT KESS improved the power grid efficiency and increased the penetration rate of the wind turbines. Fuji Electric is now looking for further deployment opportunities.

Energy Efficiency Program proposals and comments submitted to the MPSC can be found at www.michigan.gov/mpsc under 21st Century Energy Plan and Energy Efficiency.

2007 Energy Star Home Grants are available to licensed residential builders in Michigan. Five grants up to \$8,000 each will be available for an Energy Star rated home. The grant includes \$3,000 for marketing costs and up to a \$5,000 incentive. The grant period will run from March 1 – Dec. 31, 2007. Applications must be submitted by Dec. 15, 2006.

www.michigan.gov/eoresidential

Residential Energy Services Network has announced a new system for home energy ratings that turns the old ratings upside down. Before, the higher the HERS rating the more efficient. Now, the lower the HERS score the better. A home energy rater evaluates a home compared to a computer-simulated reference house of identical size and shape that meets minimum requirements of the International Energy Conservation Code (IECC). Each 1% reduction in energy usage compared to the reference house results in a one point decrease in the HERS score. Energy Star homes in southern Michigan are required to be 15% more energy efficient than IECC, so these homes need a HERS score of 85 or lower. Energy Star homes in northern Michigan are required to be 20% more efficient than IECC, so these homes need a HERS score of 80 or lower.

SustainableDesignUpdate.com is a green technology and design weblog edited by John Barrie. The blog covers topics in green building, new energy technologies and the people who are creating a sustainable future. Recent postings cover Cellulosic Ethanol, New Hydrogen Technologies, a Primer on Green Design and Electric Cars. www.sustainabledesignupdate.com.

Introductory Renewable Energy Seminars will be held on Sept. 16, 9 AM - 5 PM at Western Michigan Environmental Action Council Office in Grand Rapids. www.glrea.org or 800-434-9788

Solar Photovoltaic Apprentice Training will be held on October 2-6 at the GLREA Energy Demonstration Center in Dimondale. www.glrea.org or 800-434-9788

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5 Hybrid Solar Lighting systems are in place and another 20 are scheduled to be installed in the next months. The technology uses a rooftop-mounted 48" diameter collector and secondary mirror that track the sun throughout the day. The collector system focuses the sunlight into 127 optical fibers connected to hybrid light fixtures equipped with diffusion rods visually similar to fluorescent light bulbs. These rods spread light in all directions. One collector powers 8-12 hybrid light fixtures, which can illuminate about 1,000 sq.ft. During times of little or no sunlight, a sensor controls the intensity of the artificial lamps to maintain a constant level of illumination. Over the next months, beta testing will continue. The system can save about 6,000 kWh's/year in lighting and another 2,000 in reduced cooling.

http://www.greenbiz.com/news/news_third.cfm?NewsID=33528

Assoc. of Energy Engineers West Michigan Chapter will hold their Sept. 6, 11:30-1:00 meeting at the Watermark Country Club in Grand Rapids. Chuck Wood, Technical Consumer Products, will talk about what is new in compact fluorescent lamp technology. Contact Mark Zoeteman at mrzoeteman@fch.com for additional information.

COMcheck, a software tool developed by DOE, can be used to assist commercial building owners to demonstrate compliance with building energy codes. The Internal Revenue Service (IRS) has agreed that the software can be used to help determine eligibility for lighting tax credits by calculating the percentage reduction in a project's lighting power density (LPD) compared to a code building as defined by Standard 90.1-2001. This helps owners plan improvements and claim credit as these interim rules permit. Owners can qualify for a tax credit between 30 and 60 cents per square foot off the cost of purchasing an energy efficient lighting system. The full range of credits will be available when the IRS finishes its final rules. The COMcheck tool is available for download at http://www.energycodes.gov/comcheck/ez_download.stm; a web-based version is also available.



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